UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/251,403	02/17/1999	MASAHITO NIIKAWA	013227-049	3197

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EXAMINER
FLETCHER, JAMES A

ART UNIT	PAPER NUMBER
2615	11

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)	
Office Action Summary	09/251,403	NIIKAWA ET AL.	
	Examiner	Art Unit	
	James A. Fletcher	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _28 January 2003_ .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-18_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-18_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _8_ .   6)☐ Other: .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1, 4, 5, 6, 8, 10, 12, 14, and 17 have

been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lamaire et al (6,378,053) in further view of Ichimura (6,188,831)

Regarding claims 1 and 4, Lamaire et al disclose a device and method for

processing images on a recording medium comprising:

- o   an indicator which commands a processing to be executed for the image (Col

    5, lines 43-45 "a cache directory entry [CDE]...for managing a network object

    cache")

- o   a deletion directional member which directs to delete the image recorded in

    the image recording medium (Col 5, line 66 - Col 6, line 1 "pointers to the

    CDEs for the most-recently-used object and the least-recently-used object."

    Since this pointer indicates the least-recently-used object, it indicates the next

    object to be replaced by a low-resolution object. See Col 6, lines 26-30 "If

    however in step 520 it was determined that there was insufficient free cache

memory, control proceeds to step 540. In this step the least-recently-used

object `y` is found. The space allocated to this object consisting of `Sy` bytes

is made free. ")

o   a compressor which compresses the image based on the data when the

deletion directional member directs to delete the image (Col 4, lines 2-3 "a

specific hardware component for reducing the resolution of a network object")

and

o   a recorder which stores the compressed image (Col 4, lines 10-13 "The cache

manager...uses the information in the cache directory to store...network

objects in the cache memory.")

o   Although Lamaire suggests a controller which sets up data in accordance with

the processing command by the indicator; (Col 5, lines 61-63 "the full network

object name is stored in CDE field 410, and the type of object...is stored in

CDE field 420"), he does not specifically disclose the use of that data to rank

the images in order of importance.

Ichimura teaches a controller that ranks images and sets their

compression accordingly (Col 18, lines 52-54 "image data...stored in the

time-series data storing section are compressed when the level of importance

is low").

As suggested by Lamaire and taught by Ichimura, varying the

compression of data based on its importance can help optimize storage and

transmission capacity. Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to vary the compression of image data based on its importance.

Regarding claim 2, Lamaire et al disclose a device wherein the compressor alters a compression rate of the image based on the data (Col 2, lines 8-9 "dynamically reducing the resolution of a multiresolution object" and Col 4, lines 37-39 "a lower resolution version of an object requires less storage space than a higher resolution version of that object")

Regarding claim 3, Lamaire et al disclose an image processing device wherein the data is evaluation value for the image (Col 5, line 66 - Col 6, line 1 "pointers to the CDEs for the most-recently-used object and the least-recently-used object")

4.   Claims 5-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (5,924,092) in further view of Ichimura.

Regarding claims 5 and 8, Johnson discloses an image processing device comprising:

- an indicator which commands a processing step to be executed for the image data (Col 5, lines 41-42 "If the cache is full, however, "old" data must first be removed from the cache..." The full cache is the indicator.)

- a recorder and step of recording which records a time when the indicator commands a processing (Col 5, lines 41 "'old' data". In order to determine the age of the data, a time of processing of the data is inherently stored.)

○   a timer and step of measuring time since the time of processing (Col 5, line

41 "'old' data". In order to determine the age of the data, a measurement of

the time since processing of the data is inherently stored.)

○   Although Johnson suggests a controller and step of setting up compression

rate for the image data (Col 5, lines 43-45 "The old data is typically processed

by a compression engine to recompress the data and store it back in partition

44", he does not specifically disclose setting that compression rate based on

an evaluation value for the image based on the output of the timer.

Ichimura teaches a controller that ranks images based on a timer and

sets their compression accordingly (Col 18, lines 52-54 "image data... stored

in the time-series data storing section are compressed when the level of

importance is low [such as when a preset time has elapsed since the data

was stored]").

As suggested by Johnson and taught by Ichimura, varying the

compression of data based on its importance can help optimize storage and

transmission capacity. Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to vary the compression of

image data based on its importance.

Regarding claim 6, Johnson discloses an image processing device comprising:

○   a detector which detects that the indicator gives no command for a

predetermined time or more based on the output from the timer (Col 5, line 41

"'old' data". In order to determine if data is "old", a measurement of the time

since processing of the data, and a threshold for that measurement is

inherent.)

- a controller which controls so as to increase said compression rate based on

  the output from the detector data (Col 5, lines 43-45 "The old data is typically

  processed by a compression engine to recompress the data and store it back

  in partition 44").

Regarding claims 7 and 9, Johnson discloses an image processing device and

step wherein a lower evaluation value for the image data is set when the indicator gives

no command for a predetermined time or more, based on the output from the timer (Col

5, line 41 "'old' data". In order to determine if data is "old", a measurement of the time

since processing of the data, and a threshold for that measurement is inherent.)

Regarding claims 10 and 12, please see Examiner's remarks regarding claims

5 and 8.

Regarding claims 11 and 13, Johnson reveals an image processing device and

processing step wherein the evaluation value is set up in accordance with the command

from the indicator (Col 5, lines 43-45 "The old data is typically processed by a

compression engine to recompress the data and store it back in partition 44." When old

data is indicated, the command causes the data to be recompressed).

5.   Claims 14-18 are rejected under 35 U.S.C. 102(e) as being anticipated by

Takahashi et al (6,348,974) in further view of Parulski et al (5,241,659).

Regarding claims 14 and 17, Takahashi et al disclose an image processing

method and system for processing images which are recorded in a recording medium,

comprising:

- o   a transfer circuit and step for transferring images from a first recording medium

    into a second recording medium (Col 1, lines 13-19 "an input image...is

    compressed and stored as image information...and thereafter, this image

    information is expanded and printed [formation of a visual image on a medium]")

- o   a deletion member and step to direct deletion of the image (Col 21, lines 30-33

    "when printing...is completed...the image information of all the pages of the

    original is accessed and deleted at one time")

- o   a detector and step of judging whether the image has been transferred into the

    second recording medium based on the data when the deletion member or step

    directs to delete the image (Col 21, lines 30-33 "when printing...is

    completed...the image information of all the pages of the original is accessed

    and deleted at one time"); and

- o   an indicator and step of indicating the output of the detector (Col 12, lines 15-18

    18 "The status indicator 117 indicates a status of the copying machine by

    displays of various kinds of pictures and characters while flashing").

- o   Takahashi et al suggest a recorder and step which records data indicating that

    the image recorded in the first recording medium is transferred into the second

    recording (Col 12, lines 15-18 "The status indicator 117 indicates a status of the

    copying machine by displays of various kinds of pictures and characters while

flashing"), but do not specifically disclose recording the ID data of the second

recording medium, indicating that the image was transferred into the second

recording medium.

Parulski et al teach of a memory recording the pictures that have been

transferred to an external memory (Col 9, lines 18-21 "The pointer table contains

disc ID pointer entries for all discs which have been previously inserted into

playback device and programmed").

As suggested by Takahashi et al and taught by Parulski et al, recording a

list of images that have been transferred to a removable memory helps assure

the user that images have been saved in a long-term medium. Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the

invention to record data indicating that an image had been transferred to another

memory medium.

Regarding claims 15 and 18, Takahashi et al disclose an image processing

system wherein image data are deleted on the direction of the data from the deletion

directional member (Figure 16, steps S113 and S114 indicate a data deletion step that

only occurs once the third copies have been printed. In order to determine that the third

copies had been printed, it is inherent that a data deletion member based on the

completion of printing be part of the disclosed system.).

Regarding claim 16, Takahashi et al disclose an image processing system

wherein the data is recorded in the first recording medium (Col 1, lines 13-19 "an input

image...is compressed and stored as image information").

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to James A. Fletcher whose telephone number is (703)

305-3464. The examiner can normally be reached on 7:45AM - 5:45PM M-Th,

Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Christensen can be reached at (703) 308-9644.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

JAF
March 19, 2003

VINCENT BOCCIO
PRIMARY EXAMINER